M Series

M282X, M322X, M322W and M402X digital projectors

Easy to use and at the right price, M Series projectors using the latest DLP® technology from Texas Instruments provide all the essential features that you need to connect with your audience.

Essential Features for Educational Facilities

- Plug and Play intuitive setup and operation
- Bright images easily viewed in any application
- Versatile, color-coded connections to computer, video sources and external monitor
- Automatic keystone correction technology instantly projects a square image even when the projector is set up at a steep offset angle to the screen
- AutoSense™ intuitively syncs the projector with most computer signals and features one-touch image optimization
- One-touch source changes and complete menu control using the intuitive projector keypad
- Powerful 20-watt speaker provides volume needed for large rooms
- High contrast images (10,000:1) from the latest Texas Instruments DLP engine featuring BrilliantColor™ technology with improved color accuracy
- With XGA and WXGA native resolutions, high brightness up to 4000 lumens and patented NEC technologies, M Series projectors display impressive image quality

Designed with the Environment in Mind

- Extended lamp life with ECO Mode™ technology increases lamp life up to 10,000 hours, while lowering power consumption
- Power management enables projector to automatically turn off when an incoming signal is not detected from any of the inputs
- Auto Power On via the RGB (15-pin) input connector when a signal is detected from a computer
- Carbon savings meter calculates the positive effects of operating the projector in ECO Mode, which is encouraged by an optional message at startup. A green ECO Mode button on the remote control makes the switch easy.
- Quick start (3 to 4 seconds) lets you begin presenting in seconds
- Sleep timer can be set to automatically turn off the projector at set countdown times
- Low power consumption (0.2W in stand-by mode) minimizes energy costs

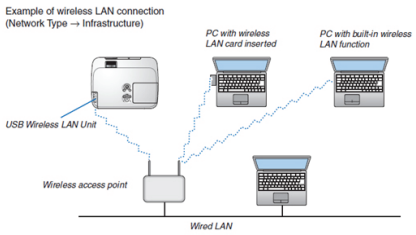
Advanced Networking Capabilities

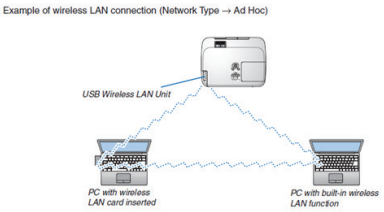
- Integrated RJ45 connection for quick connection to the LAN (10/100 base-T capability)
- Remote diagnostics enable the user to monitor and make adjustments to the projector remotely
- PC CTL 4.0 controls the power switching input selection and other functions while managing lamp usage and a variety of other vital information over the network. Email notification and projector scheduling for better asset management is included with the software.
- PC CTL 5.0 for MAC users
- Control and receive important broadcast messages via Crestron Roomview™
- Wireless Image Utility (WIU) sends images directly from an iPad to the projector (requires wireless LAN module NP02LM1)
- Simple Access Point Sending photos and documents have never been easier from a computer or iPad.

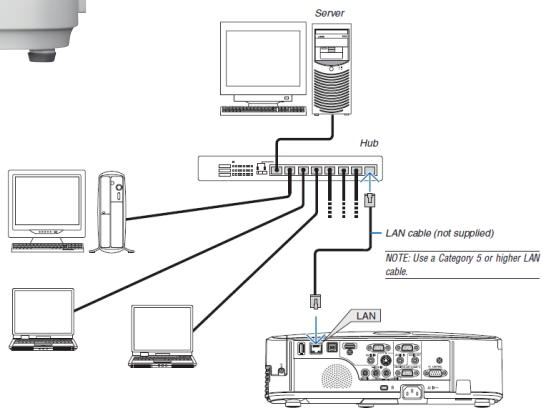
Image Express Lite

Dedicated projector software provides wired and wireless data and audio transmission via peer-to-peer or over the network.

Wireless LAN module (optional)


Example of wireless LAN connection (Network Type → Infrastructure)
PC with wireless LAN card inserted
PC with built-in wireless LAN function
USB Wireless LAN Unit
Wireless access point
Wired LAN


Example of wireless LAN connection (Network Type → Ad Hoc)
USB Wireless LAN Unit
PC with wireless LAN card inserted
PC with built-in wireless LAN function



Advanced ECO Mode

ECO Mode

Lamp control selections with the ability to change power dependent on the ambient lighting conditions. With a built-in ambient light sensor, automatic adjustment of the projectors lamp provides unprecedented brightness control resulting in bright images for most environments.
Automatically dim the image with the new Auto-dim feature to control the brightness of static images and extend lamp life.
Constant brightness control prevents the usual drop in brightness over time while maximizing lamp life.

Built-in wall color correction presets

These provide for adaptive color tone correction to display properly on non-white surfaces.

On a green wall...

BEFORE auto wall correction

AFTER auto wall correction

When combined with active shutter glasses (NP02GL), 3D Ready M Series Projectors use DLP Link™ technology, developed by Texas Instruments, to create 3D images from a computer. The M282X/M322X/M322W/M402X are certified as a display device for NVIDIA® 3D Vision™, which allows you to view 3D images using supported graphics boards or software. HDMI 3D images can be viewed using a 3rd party 3D glass from XPAND or Volfoni.

Top cover lamp change

This feature provides for easy lamp changes without removal of the projector from the mount.

Active lens cover

This cover enables presenters to immediately mute the audio and video, then seconds later lower the lamp brightness to 25% for a short period of time.

Get Connected with a Wide Selection of Inputs

- Dual HDMI inputs ensure quick switching between presentations
- Four audio inputs (two mini stereo, R/L and HDMI™) make it easy to add sound to enhance your presentations

Remote control

Easy control from remote allows you to adjust lamp mode, aspect ratio, volume and image all with the touch of a button.

Dual HDMI inputs

Among the M Series' wide selection of inputs is an HDMI w/HDCP for connecting to high-definition sources such as Blu-ray players, cable boxes, satellite receivers and personal computers.

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

Variable audio-out

This input enables the remote control to be used to adjust volume of self-powered external speakers that are connected to the projector. In stand-by mode the audio-out stays active, allowing the last input used to pass to the self-powered external speakers.

USB Viewer

In instances when you'd prefer to leave your laptop behind for a presentation, M Series projectors can deliver a solution. Using the presentation conversion software included with your projector, simply place your file onto a USB drive and plug it into the projector's USB port. This allows you to display images stored as .jpgs from optional USB memory.

USB input

Your connection options go even further with the M Series. Connect your laptop or PC directly to the projector using the USB port and a standard USB cable.

UNIQUE FEATURES

BrilliantColor advanced video processing from Texas Instruments delivers more vibrant and realistic colors and blacks rich in detail.

DICOM Simulation enables users in medical training environments to display accurate diagnostic images

Advanced AccuBlend™ ensures detailed images when non-native resolution sources are connected to the projector

Filter Free with shielded engine eliminates the hassle and time spent monitoring and / or changing filters.

Built-in closed captioning enables decoding and display of text information from a video

64-step image magnification with location control

Countdown sleep timer can be set to automatically turn off the projector

WARRANTY

Registered owners receive a 2-year parts and labor warranty including InstaCare. The lamp is covered for one year or 500 hours, whichever comes first. InstaCare provides the original owner one year of either limited 3 business day repair/return or next business day exchange.

SHIPS WITH

Carrying case, remote control, batteries, power cord, RGB signal cable, built-in lens cover, user's manual on CD-ROM, quick start guide, product registration card and DisplayNote Presenter License

ORDERING MODEL NUMBERS

NP-M282X
NP-M322X
NP-M322W
NP-M402X

Additional accessories are available, including screens, carts, mount accessories and replacement cables. Visit www.necdisplay.com for details.

Specifications for M282X/M322X/M322W/M402X

OPTICAL	
Display Technology	M282X/M322X/M402X: 0.55" DLP by Texas Instruments w/ BrilliantColor M322W: 0.65" DLP by Texas Instruments w/ BrilliantColor
Light Output (lumens)	M282X: 2800 M322X/M322W: 3200 M402X: 4000
Resolution Native	M282X/M322X/M402X: XGA 1024 x 768 M322W: WXGA 1280 x 800
Maximum	WUXGA 1920 x 1200
Contrast Ratio (up to)	Up to 10,000:1
Lamp Type	M282X: 200 AC M322X/M322W: 225W AC M402X: 270W AC
Lamp Life (up to)	M282X: 4500 hours / 10,000 hours eco M322X/M322W/M402X: 3500 hours / 8000 hours eco
Screen Size (diagonal)	30 - 300 in., 0.76 - 7.6m
Throw Ratio	M282X/M322X/M402X: 1.5 - 2.5:1 M322W: 1.2 - 2.0:1
Projection Distance	M282X/M322X/M402X: 3.0 - 52.4 ft. / 0.9 - 15.97m M322W: 2.5 - 44.4 ft. / 0.76 - 13.53m
Projection Angle	10.5° - 17.6°
Lens*	
Zoom	1.7
Focus	Manual
F-#, f-#	F=2.4 - 3.1, f=17.09 - 29.05mm
Keystone Correction	+/- 30% Horizontal & Vertical (Automatic/Manual) adjustment
SIGNAL COMPATIBILITY/ CONNECTIVITY	
Scan Rate	
Horizontal	15 – 100 kHz
Vertical	50 – 120 Hz
Supported Video Standards	NTSC, NTSC4.43, PAL, PAL-60, PAL-M, PAL-N, SECAM
SD/HD Video Signal Compatibility	1080i, 1080p, 720p, 576p, 576i, 480p, 480i,Y/Cb/Cr component (with optional adapter – ADP-CV1E)
PC Signal Compatibility	VGA, SVGA, XGA, SXGA, SXGA+, UXGA, WUXGA
Macintosh Compatibility	Yes
Input/Output Terminals	
RGB1 (analog)	VGA 15-pin D-sub
RGB2 (digital)	HDMI w/ HDCP
RGB3 (digital)	HDMI w/ HDCP
RGB4 (digital)	USB A Type
Video	RCA
Audio 1	L/R RCA (shared by video sources)
Audio 2	1/8 in. stereo
Audio 3	Microphone in
Audio Out	mini stereo (variable audio out)
Monitor Out	Yes
Audio	20W speaker
External Control	RS-232, IR, LAN, DDC/CI, USB, Wireless LAN (optional)
Sync Compatibility	Separate Sync / Composite Sync / Sync on G
ELECTRICAL	
Power Requirements	100 – 240V AC, 50/60Hz
Input Current	M282X: 3.0A / 1.5A M322X/M322W: 3.3A / 1.8A M402X: 3.9A / 1.9A
Power Consumption (ECO Off/ECO Mode/ Standby/Standby-Power Saving)	M282X: 257W / 187W / 2.5W / 0.2W M322X/M322W: 282W / 202W / 2.5W / 0.2W M402X: 335W / 246W / 2.5W / 0.2W
MECHANICAL	
Installation Orientation	Floor/Front, Floor/Rear, Ceiling/Front, Ceiling/Rear
Dimensions (WxDxH)	13.4 x 10.1 x 3.5 in. / 340 x 280 x 90mm
Net Weight	M282X/M322X/M322W: 7.7 lbs. / 3.49 kg M402X: 8.0 lbs. / 3.6 kg
Fan Noise	M282X: 38 dB / 29 dB eco M322X/M322W: 38 dB / 30 dB eco M402X: 39 dB / 33 dB eco
Regulations	UL60950-1, CSA60950-1, FCC Part 15 Class B, ICES-03 Class B
ENVIRONMENTAL	
Operating Temperature	41° – 104°F / 5° – 40°C
Humidity	20-80% non-condensing
Storage	-14° – 122°F / -10° – 50°C
ACCESSORIES	
NP01MR	IR receiver enables PJ remote to control PC and MAC functions
NP02LM1	802.11b/g/n wireless LAN adapter
SPKR30	Amplified 30-watt speaker
ADP-CV1E	Component video to VGA adapter
MP300CM	Ceiling mount
NP01UCM	Universal ceiling mount for projectors weighing less than 40 pounds
NP02GL	Active shutter 3D glasses (PC only)
AEC006009	6 to 9 inch adjustable extension column for use with projector mount
AEC012018	12 to 18 inch adjustable extension column for use with projector mount
AEC0203	2 to 3 foot adjustable extension column for use with projector mount
AEC0305	3 to 5 foot adjustable extension column for use with projector mount
SCP200	Adjustable suspended ceiling plate for use with ceiling mount
NP27LP	Replaceable lamp for M282X
NP28LP	Replacement lamp for M322X and M322W
NP30LP	Replacement lamp for M402X
RMT-PJ36	Replacement remote control
NECEW1-MP	Extends term of parts and labor warranty to 3 years
NECEW2-MP	Extends term of parts and labor warranty to 4 years
ADVEXON1-MP	Extends term of InstaCare service program to 2 years
ADVEXON2-MP	Extends term of InstaCare service program to 3 years
NECECO	Projector recycling program, disposal certificate
PWRCRD-PJPX	Power cable
RGBCBL-PJPX	RGB cable

Advanced AccuBlend, ECO Mode and Virtual Remote are trademarks of NEC Display Solutions. HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC. All other brand or product names are trademarks or registered trademarks of their respective holders. Product specifications subject to change.

©2013 NEC Display Solutions of America, Inc. All rights reserved.
rev. 4.22.2014

NEC Display Solutions
500 Park Boulevard, Suite 1100
Itasca, IL 60143
866-NEC-MORE

necdisplay.com